

### **ABSTRACT OF THE INVENTION**

The method of the present invention selects an access point with the lowest load, which will reply to the probe-request packet sent by a station, and then constructs an association between the station and the access point

5      with the lowest load so as to balance the load of the plurality of access points. To select the access point with the lowest load, a master access point sends a load collection packet, and the access points with the same service set identifier send a load index packet when receiving the load collection packet. Afterward each access point performs a load

10     comparison procedure to select the access point with the lowest load. The access point with the lowest load will turn on the probe-response function, and the other access point will turn off the probe-response function.